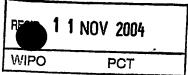
# PATENT COOPERATION TREATY

### **PCT**



### INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

### Rec'd PCT/PTO 15 DEC 2004

Applicant's or agent's file reference BA9308PCT			ent's file reference	FOR FURTHER A	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)			
International application No. PCT/US 03/23821				International filing date 29.07.2003	(day/mon	th/year)	Priority date (day/month/year, 31.07.2002	)
1	International Patent Classification (IPC) or both national classification and IPC C07D413/14							
Applicant E.I. DU PONT DE NEMOURS AND COMPANY et al.								
1.	This international preliminary examination report has been prepared by this International Preliminary Examining     Authority and is transmitted to the applicant according to Article 36.							
						, ,		
2.	This	REP	ORT consists of a total o	f 4 sheets, including t	his cover	sheet.	•	
	This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).							
	These annexes consist of a total of sheets.						-	
						•		
3.	This	repor	t contains indications rel	ating to the following it	tems:			
	1	$\boxtimes$	Basis of the opinion					
	11		Priority					
	,111	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability						
	IV V							
	V 🖾 Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement						olicability;	
	VI		Certain documents cite	đ				
	VII		Certain defects in the in	nternational application	า			
	VIII    Certain observations on the international application							
Date of submission of the demand			Date of	completion of this	s report			
23.02.2004				10.11.	2004			
Name and mailing address of the international preliminary examining authority:				Authoriz	ed Officer		aches Petente	
European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465			6 epmu d	Cortés Telepho	, <b>J</b> ле No. +49 89 23	399-8206		

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US 03/23821

1.	Bas	is of	the	rep	ori
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1. With regard to the **elements** of the international application (Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)):

	De	scription, Pages				,		
	1-7	2	as originally filed					
Claims, Numbers								
	1-1	1	as originally filed			• •		
2.	Wit lan	h regard to the <b>langu</b> guage in which the int	age, all the elements marked ternational application was file	above were avai d, unless otherw	lable or furnished ise indicated unde	to this Authority in the er this item.		
	The	ese elements were available or furnished to this Authority in the following language: , which is:						
		the language of a tra	anslation furnished for the purp	oses of the inter	າnational search (ເ	under Rule 23.1(b)).		
		the language of publ	lication of the international app	olication (under F	Rule 48.3(b)).			
		the language of a tra Rule 55.2 and/or 55.	anslation furnished for the purp 3).	oses of internati	onal preliminary e	examination (under		
3. With regard to any <b>nucleotide and/or amino acid sequence</b> disclosed in the international application international preliminary examination was carried out on the basis of the sequence listing:						al application, the		
		contained in the inte	rnational application in written	form.				
		filed together with the	e international application in c	omputer readable	e form.	•		
		furnished subsequer	ntly to this Authority in written f	orm.				
		furnished subsequer	ntly to this Authority in compute	er readable form.				
		The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.						
		The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.						
4.	The	amendments have re	esulted in the cancellation of:					
		the description,	pages:					
		the claims,	Nos.:					
		the drawings,	sheets:					
5.		This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).						
(Any replacement sheet containing such amendments must be reference.)				erred to under item	n 1 and annexed to this			
6.	Add	itional observations, i	f necessary:					

#### INTERNATIONAL PRELIMINARY **EXAMINATION REPORT**

International application No.

PCT/US 03/23821

- V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- 1. Statement

Novelty (N)

Yes: Claims Claims 1-11

No:

Inventive step (IS)

Yes: Claims

1-11

No:

Claims

Yes: Claims Claims 1-11

Industrial applicability (IA) No:

see separate sheet

2. Citations and explanations

Form PCT/IPEA/409 (January 2004)

#### Re Item V

Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

Reference is made to the following document:

D1: Org. Prep. Proced. Int. (1993), 25, 588-590

#### Novelty (Article 33(2) PCT)

The present process differs from the typical procedure disclosed in D1 (page 589, 4th paragraph) in step 3, i.e. in adding additional sulfonyl chloride after contacting the two reactants.

The present invention is novel.

#### Inventive Step (Article 33(3) PCT)

D1 discloses a process for the preparation of a fused oxazinone and can be regarded as the closest prior art.

According to the Applicant (see e.g. the Applicant's letter of 16.06.04) the problem of the invention was the provision of an improved process for preparing fused oxazinones.

By modifying the process in D1 (present step 3 and ratios of reactants in the present steps 1-3) the Applicant has achieved a process with a higher product yield (typical yields above 80%, see present description, e.g. tables 1-3, page 45) than the process described in D1 (typical yields of 60% or lower, see D1, table, page 588).

D1 does not contain any indications which would have prompted a skilled person with the goal of providing a process with a higher yield to modify the process in D1 like it has been done in the present invention.

Therefore the present invention is based on an inventive step.